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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,291	07/31/2003	Renato Keshet	200308995-1	5072

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EXAMINER	
PATEL, KANJIBHAI B	
ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/632,291	KESHET ET AL.	
	Examiner	Art Unit	
	Kanji Patel	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 February 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-7,11,12,16,17,20,22-24 and 29-31* is/are rejected.

7)☒ Claim(s) *3,8-10,13-15,18,19,21 and 25-28* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *31 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *2/14/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Amendment

1. Applicant's amendment filed 2/14/07 has been entered and made of record.

By this amendment, claims 28-31 are added new. Claims 1-31 are pending in the application.

Response to Arguments

2. Applicant's arguments, see pages 8-13 of the remarks, filed 2/14/07, with respect to the rejection(s) of claim(s) 1-7, 10-12, 15-17 and 20-26 under 35 USC 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Maurer et al. (US 6,731,821 B1).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 4-7, 11-12, 16-17, 20, 22-24 and 29-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Maurer et al. (US 6,731,821 B1—Already on record).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome

either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

For claim 1, Maurer et al. disclose a digital imaging system (Figures 1-7) comprising:

an imaging system configured to provide image data of an image (step 102 in Figure 5 and step 202 in Figure 6 provide image data; see column 8, lines 6-9), the image data comprising digital image data for a plurality of pixel locations (column 8,lines 10-23); and

processing circuitry configured to process the image data provided by the imaging system to denoise and sharpen the image data (Figure 4; column 6, lines 33-67; column 8, lines 10-62), wherein the processing circuitry, for an individual one of the pixel locations, is configured to:

identify a respective subset of the image data corresponding to the one pixel location (Figures 3 and 5-6); and

perform a single processing operation (column 6, lines 33-48; a single iteration corresponds to a single processing) using the image data of the identified subset of the image data to denoise and sharpen the image data of the individual one pixel location.

For claim 2, Maurer ert al. disclose the system wherein the processing circuitry is configured to perform the single processing operation using a robust estimation filter (column 6, lines 33-67).

For claim 4, Maurer et al. disclose the system wherein the processing circuitry is configured to perform the single processing operation using the image data comprising information regarding a plurality of colors at individual ones of the pixel locations(column 9 line 40 to column 10 line 6).

For claim 5, Maurer et al. disclose the system wherein the processing circuitry is configured to perform the single processing operation using the image data comprising luminance information(column 9 line 40 to column 10 line 6).

For claim 6, Maurer et al. disclose the system wherein the processing circuitry is configured to identify the respective subset of the image data comprising image data of a plurality of other pixel locations (Figures 5-6).

For claim 7, Maurer et al. disclose a digital imaging system (Figures 1-7) comprising:

imaging means for providing image data of an image (step 102 in Figure 5 and step 202 in Figure 6 provide image data; see column 8, lines 6-9), the image data comprising digital image data for a plurality of pixel locations; and

processing means for denoising and sharpening the image data of the pixel locations comprising for an individual one of the pixel locations(column 8,lines 10-23):

identifying a respective subset of the image data comprising image data of the one pixel location and image data of at least one other pixel location (Figures 5-6); and

processing the image data of the one pixel location and the other pixel location using a robust estimation filter to at least one of sharpen and denoise the image data of

the one pixel location (Figure 4; column 6, lines 33-67; column 8, lines 10-62; RAD or Robust-Anisotropic-Diffusion filtering corresponds to a robust estimation filter).

For claim 11, Maurer et al. disclose the system wherein the processing the image data comprising processing the image data comprising luminance information (column 9 line 40 to column 10 lin1 6).

For claim 12, see at least the rejection of claim 7 above.

12. An article of manufacture comprising:

a processor-usable medium comprising processor-usable code configured to cause processing circuitry to:

access image data for a plurality of pixel locations of an image, wherein the image data comprises color information for a plurality of colors for individual ones of the pixel locations;

identify one pixel location;

identify a plurality of other pixel locations responsive to the identification of the one pixel location; and

apply a robust estimation filter to the image data of the one pixel location and the other pixel locations to at least one of sharpen and denoise the, image data of the one pixel location.

For claim 16, Maurer et al. disclose the article wherein the image data comprises chrominance information and luminance information and the code is configured to cause the processing circuitry to apply the robust estimation filter to the luminance information of the image data (column 9 line 40 to column 10 line 6).

For claim 17, Maurer et al. disclose a digital image processing method comprising:

providing image data of an image (step 102 in Figure 5 and step 202 in Figure 6 provide image data; see column 8, lines 6-9) , the image data comprising digital image data for a plurality of pixel locations (column 8,lines 10-23);

processing the image data comprising sharpening and denoising the image data using a robust estimation filter (Figure 4; column 6, lines 33-67; column 8, lines 10-62; RAD or Robust-Anisotropic-Diffusion filtering corresponds to a robust estimation filter).

For claim 20, Maurer et al. disclose the method wherein the processing comprises processing in a single processing operation (column 6, lines 33-48; a single iteration corresponds to a single processing).

For claim 22, Maurer et al. disclose the method wherein the providing image data comprises providing image data comprising a plurality of colors for individual ones of the pixels (column 9 line 40 to column 10 line 6).

For claim 23, Maurer et al. disclose the method wherein the image data comprises chrominance and luminance information, and wherein the sharpening and denoising comprise sharpening and denoising only the luminance information (column 9 line 40 to column 10 lin1 6).

For claim 24, Maurer et al. disclose the method wherein the processing comprises adjusting image data of one of the pixel locations using image data of at least one other pixel location (Figures 5-6).

For claims 29-30, Maurer et al. disclose the system wherein the processing means comprises means for comparing (step 120 in Figure 5 and steps 214 and 226 in Figure 6) the image data of the one pixel location with the image data of the other pixel location and to select the at least one of the sharpening and denoising responsive to the comparison.

For claim 31, Maurer et al. disclose the method further comprising:

for an individual one pixel location (Figure 3), comparing image data (step 120 in Figure 5 and steps 214 and 226 in Figure 6) of the individual one pixel location with image data of an other of the pixel locations;

selecting, for the individual one pixel location, one of the sharpening and denoising responsive to the comparing (Figures 4 and 7); and

wherein the processing comprises performing the selected one of the sharpening and denoising of the image data of the individual one pixel location responsive to the selecting (Figures 4 and 7).

Allowable Subject Matter

4. Claims 3, 8-10, 13-15, 18-19, 21 and 25-28 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Contact Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kanji Patel whose telephone number is (571) 272-7454. The examiner can normally be reached on Monday to Friday from 7:30 a.m. to 5:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bella, Matthew can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kanji Patel
Art Unit 2624
6/22/07

KANJIBHAI PATEL
PRIMARY EXAMINER